**SUPPLEMENTARY MATERIALS**

**SECTION A: Scoring criteria for PT**

Table A1

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| *Criteria for scoring of the PT stages* |
| **Stage 2, category procedure**: The criterion for processing of Stage 2 is that there is an inflection on the verb.(V-te: spis-te ‘ate’, V-de: byg-de ‘built’). Two examples are needed |
| **Stage 3, phrasal procedure**: The criterion for Stage 3 is NP or VP agreement (NP: Art mask def  - Adjdef - N mask def : Den mask def   lange def køen mask def ). Two examples are needed. |
| **Stage 4, sentence procedure**: The criterion for Stage 4 is subject-verb inversion with a main verb and after a topicalized element. (Topicalization - Verb - Subject). One example is needed. |
| **Stage 5, subordinate clause procedure**: The criterion for Stage 5 is the subordinate clause word order in the relative clause, with adverbial in front of the finite verb instead of after the finite verb as in main clauses. (NP subj [REL- Adverbial-Verb]RC VP). One example is needed. |

**SECTION B: Examples of individual responses**

**Repetitions of subordinate clause word order in children with DLD and TD**

**Target example, a relative clause with subordinate clause word order**

Hunden Peik som bare er en liten valp like-r å leke med den store blå ballen sin.

Dog-DEF Peik [who just is a tiny puppy]RELCL, like-PRS to play with the big-DEF blue ball-DEF his

‘The dog Peik, who is just a tiny puppy likes to play with his big blue ball’

**Transcribed utterances from the 38 children**

DX = child in the DLD group, TX = child in the TD group

**Children with DLD (*n* = 19)**

**Classification of responses**

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| **1) Target relative clause with subordinate clause word order (2 children)** |
| **D9** Peik som bare er en liten valp like-r å leke med den stor-e god-e bamse-n.Peik [who just is a tiny puppy]RELCL like-PRS to play with the big-DEF good-DEF teddy-DEF.‘Peik who is just a tiny puppy likes to play with the big good teddy’  |
| **D15** Hund Peik som bare er en liten valp like-r å leke med den stor-e ball-en sin. Dog Peik [who just is a tiny puppy]RELCL like-PRS to play with the big-DEF ball-DEF his.‘The dog Peik who is just a tiny puppy likes to play with his big ball |

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| **2) Attempts to formulate clauses with NP and VP (15 children)** |
| **D4** Hund (Peik) som en liten valp (. 5 sec) (Han) like-r å leke med den blå ball-en.Dog (Peik) who a tiny puppy (.5 sec) (He) like-PRS to play with the blue ball-DEF.‘The dog (Peik) who is a tiny puppy likes to play with the blue ball’ |
| **D20** Hund-en Peik opp(.) eh han er så liten håpe-r å leke med sin stor-e ball som er blå.Dog-DEF Peik up(.) eh he is so tiny hope-PRS to play with his big-DEF ball which is blue. ‘The dog Peik up eh he is so tiny he hopes to play with his big ball which is blue’ |
| **D6** Halk er en liten hund som liker å lekeHalk is a tiny dog who like-PRS to play.‘Halk is a tiny dog who likes to play’ |
| **D7** Hun- hund-en Peik liker (. 3 sec) Nei. Er en valp. Like-r å leke med den stor-e blå-e ball-en.Dog dog-DEF Peik like-PRS (.3 sec) No. Is a puppy. Like-PRS to play with the big-DEF ball-DEF. ‘The dog Peik likes (.3 sec) No.. is a puppy who likes to play with the big blue ball’ |
| **D8** Hund-en Peik på grunn det er bare en liten valp som like-r å leke med den stor-e ball-en sin. Dog-DEF Peik because it is only a tiny puppy who like-PRS to play with the big-DEF ball-DEF his.‘The dog Peik since he is only a tiny puppy likes to play with hos big ball’ |

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| **D2** Hunden som Peik like-r (.) å leke med den stor-e blå ball-en sin.Dog-DEF that Peik like–PRS (.) to play with the big–DEF blue ball–DEF his.‘The dog that Peik likes (.) to play with the big blue ball’ |
| **D3** Eh, hund-en Peik like-r å leke med den stor-e ball-en sin.Eh, dog-DEF Peik like-PRS to play with the big-DEF ball-DEF his.‘The dog Peik likes to play with his big ball’ |
| **D12** Hund-en Peik (.) og den hund(.) og den hunden leke-r med ballen.Dog-DEF Peik () and the dog (.) and the dog-DEF play-PRS with ball-DEF.‘The dog Peik and the dog play with the ball’ |
| **D16** Hund-en Peik like-r å leke med (.) den stor-e ball-en (.) den blå ba-(.) nei det var-t lang.Dog-DEF Peik like-PRS to play with the big-DEF ball-DEF (.) the blue ba (.) no that is-PRET long.‘The dog Peik likes to play with the big ball, the blue ball. No that was long’ |
| **D22** Hund-en Peip som bare like-r å leke med en ball med den stor-e blå ball-en sin.Dog-DEF Peip who only like-PRS to play with a ball with the big-DEF blå ball-DEF his.‘The dog Peik who only likes to play with a ball with his big blue ball’ |
| **D1** Lill-e hund-en(Peik) like-r å leke med den stor-e blå ball-en sin. tiny-DEF dog-DEF (Peik) like-PRS to play with the big-DEF blue ball-DEF his.‘The tiny dog Peik likes to play with his big blue ball’ |
| **D10** Den stor-e den lill-e hund-en Peik like-r å leke med den stor-e blå ball-en sin.The big-DEF, the tiny-DEF dog-DEF Peik like-PRS to play with the big-DEF blue ball-DEF his.‘The big the tiny dog Peik likes to play with his big blue ball’ |
| **D13** Den lill-e hund-en like-r å leke med sin stor-e blå ball.The tiny-DEF dog-DEF like-PRS to play with the big-DEF blue ball his. ‘The tiny dog likes to play with his big blue ball’ |
| **D14** Hund-en Peik den lill-e hund-en like-r å leke med ball-en sin.Dog-DEF Peik the tiny dog like-PRS to play with ball-DEF his.‘The dog Peik the tiny dog likes to play with his ball’ |
| **D21** Den lill-e valp-en Peik (.) den (.) (de)n er bare en valp, han lek-te med den blå ball-en sin. The tiny-DEF puppy-DEF Peik (.) it (.) it is only a puppy he play-PRET with the blue ball-DEF his.‘The tiny puppy Peik (.) it (.) it is only a puppy he played with his blue ball’ |

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| **3) Just the noun phrase and then giving up (2 children)** |
| **D17** Hund-en Peik (.) fordi den stor-e ball-en (.) fordi han (.) nei, jeg husk-er ikkje mer.Dog-DEF Peik (.). because the big-DEF ball-DEF because he (.) no I remember-PRS not more.‘The dog Peik (.) because the big ball because he (.) no I don’t remember more’ |
| **D 19** Hunden Peik (.) nei den kan jeg ikke.Dog-DEF Peik (.) no that can I not‘The dog Peik (.) no, I can't do it |

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**Children with TD (*n* = 19)**

**Classification of responses**

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| **1) Target relative clause with subordinate clause word order (15 children)**Target relative clause (only the first example is glossed) |
| T1 Hund-en Peik [som bare er en liten valp]RELCL like-r å leke med den stor-e blå ball-en sin. Dog-DEF Peik who only is a tiny puppy like-PRS to play with the big-DEF blue ball-DEF his‘The dog Peik who is only a tiny puppy likes to play with his big blue ball’ |
| **2) Other type of subordinate clause, with subordinate clause word order (1 child)** |
| T19 Hund-en Peik (.) [selv om han bare er en liten valp]RELCL han like-r å leke med den stor-e hund-en.Dog-DEF Peik (.) even though he only is a tiny puppy he like-PRS to play with the big-DEF dog-DEF‘The dog Peik likes to play with the big dog, even if he is only a small puppy’ |

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| **3) Relative clause without subordinate clause word order (1 child)** |
| T5 Hund-en Peik som er en valp like-r å leke (.) med den lill-e (.) nei, den blå ball-en.Dog-DEF Peik who is a puppy like-PRS to play (.) with the tiny (.) no the blue ball-DEF‘The dog Peik who is a puppy likes to play (.) with the tiny (.) no the blue ball’ |
| **4) Main clause (2 children)** |
| T9 Hund-en Peik (.) like-r å leke med den stor-e rød-e ball-en sin.Dog-DEF Peik (.) like-PRS to play with the big-DEF red-DEF ball-DEF his.‘The dog Peik likes to play with his big red ball.T18 Hund-en (.) Eip (.) like-r å leke med den stor-e blå ball-en sin. Dog-DEF (.) Eip (.) like-PRS to play with his big-DEF blue ball-DEF.‘The dog Eip likes to play with his big blue ball’ |

**SECTION C: Error analyses**

**Criteria for error analysis**

Each production that earned a score of zero on the exact repetition criterion was further analyzed in terms of the numbers and types of error made. An error in this context refers to any deviation from target sentence apart from phonological errors and dialectical variations. Self-corrections to the correct form were not scored as errors.

Errors were generally word-level errors, although some errors only involved bound morphemes, i.e. changing the inflection of a verb or noun in terms of number, gender, tense or definiteness. The table below lists the error categories used in the analysis and examples of errors from each category.

*Distinction between function and content words*

Words from the following grammatical categories were considered to be *function words*: determiners, articles, conjunctions, existential ‘there’, pronouns, prepositions, quantifiers, demonstratives, copulas, auxiliaries and particles. The *content word* category contains the remaining word types: nouns, adjectives, adverbs and verbs.

Based on these criteria, we coded each word from the sub-set of nine sentences as function word or content word. The function word or content word subcategories for an omission or substitution error are based on the word’s category as it occurs within the target sentence. For example, when a child used the pronoun *de* (‘they’) instead of the noun *laget* (‘the team’) in sentence 6, this error was scored as substitution of content word because the target word is a content word.

Table A2. Description of Error Types

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| Error type | Description |
| Addition | Child has added a word which does not appear in the target sentence and cannot be considered a substitution for another word |
| Omission, function word or content word | Child has omitted a word (or one of the roots in a compound word) from the target sentence |
| Substitution, function word or content word | Child has substituted a different word for a word from the target sentence |
| Inflectional change | Child has changed the inflection of a repeated word from the target sentence. In some cases, this can co-occur with a substitution. |
| Word order change | A word from the target sentence occurs in a different position in the child’s response. This can co-occur with an inflectional change, if a word from the target sentence appears in the child’s response in a different position and with a different inflection.  |

Table A3 illustrates how the error scoring was done based on several examples from the data set. Differences between the target sentence and the transcribed utterance have been bolded.

Table A3. Error Type Scoring.

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| Target sentence | Transcribed utterance | Error type scoring |
| (3) Jentene og guttene **bygde** **et** **sandslott** på stranden.‘The girls and boys **built a sandcastle** on the beach.’ | D19: Jentene og guttene **bygger sandslott** på stranden.‘The girls and boys **build sandcastle** on the beach.’ | 1 x Inflectional change: verb ‘built’ in past tense changed to ‘build’ in present tense1 x Omission of function word: indefinite article *et* (‘a’) is missing in front of the word ‘sandcastle’ |
| (6) **Treneren kunne ikke** finne håndballene som laget spilte med i fjor. ‘**The coach could not** find the handballs that the team played with last year.’  | T14: **Lederen kunne** finne håndballene som laget spilte med i fjor.‘**The leader could** find the handballs that the team played with last year.’ | 1 x Substitution of content word: ‘the coach’ is replaced by ‘the leader’1 x Omission of content word: negation *ikke* (‘not’) is omitted |
| (1) Lisa står etter Pelle **i** den lange køen. ‘Lisa is standing behind Pelle **in** the long queue.’ | D1: Lisa står etter Pelle **etter** den lange køen.‘Lisa is standing behind Pelle **behind** the long queue.’ | 1 x Substitution of function word: ‘in’ is replaced by ‘behind’ |
| (8) Hvis det ikke slutter å regne før klokken atten, må **tenniskampen avlyses**. ‘If it doesn’t stop raining before six o’clock, the tennis match will need to be cancelled.’ | T7: Hvis det ikke slutter å regne før klokken atten, må **vi avlyse tenniskampen**.‘If it doesn’t stop raining before six o’clock, we need to cancel the tennis match.’ | Passive-to-active transformation involving three error types:1 x Inflectional change: verb form is changed from passive to active1 x Word order change: verb is moved in front of the object1 x Addition: addition of subject pronoun ‘we’ |